



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,186	05/24/2001	Manabu Hanakawa	9319S-000213	1900
27572	7590	10/03/2003	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			DUDEK, JAMES A	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	

2871

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,186

Applicant(s)

HANAKAWA ET AL.

Examiner

James A. Dudek

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-13 and 17 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2871

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of group I in Paper No. 9 is acknowledged. The traversal is on the ground(s) that it is not an undue burden. This is not found persuasive because of the reasons outlined in the restriction requirement. It is an undue burden.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 7, 11 and 17 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by 6219124 ("124").

Per claim 1 and 17, 124 teaches a liquid crystal device having a first substrate [200] and a second substrate [100], which are disposed to oppose each other, and liquid crystal enclosed in a gap between the first substrate and the second substrate, comprising: a first transparent electrode provided on the first substrate [17]; a first wiring provided on the second substrate [102]; and a conductive material connecting the first transparent electrode and the first wiring [111]; wherein the first wiring comprises a metal oxide film and a conductive film having a resistance lower than that of the metal oxide film [al oxide film 104 has a higher resistance than al layer 102].

Per claim 2, 124 teaches the liquid crystal device according to claim 1, wherein the conductive film is formed on an area other than the portion connecting with the conductive material [see figure 2, the conductive 102 is not formed in the "A" region].

Art Unit: 2871

Per claim 7, 124 teaches the liquid crystal device according to claim 1, further comprising a second transparent electrode provided on the second substrate [109]; and a driver IC connected to the second transparent electrode [see paragraph bridging columns 1-2].

Per claim 11, 124 teaches a liquid crystal device having a first substrate and a second substrate, which are disposed to oppose each other, and liquid crystal enclosed in a gap between the first substrate and the second substrate, comprising: a first transparent electrode provided on the first substrate [17]; a first wiring provided on the second substrate [102]; a conductive material connecting the first transparent electrode and the first wiring [111]; a second transparent electrode provided on the second substrate [109]; and a second wiring which is provided on the second substrate and which is connected to the second transparent electrode [105]; wherein at least one of the first and the second wirings comprises a metal oxide film and a conductive film having a resistance lower than that of the metal oxide film [oxide layer 104].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2871

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over 6219124 ("124").

Per claim 3 and 12, 124 teaches the liquid crystal device according to claim 1, further comprising a driver IC provided on the second substrate for driving the liquid crystal; and the conductive film is formed on an area other than the portion connecting with the driver IC [see paragraph bridging columns 1-2, figure 2 and region "B"]. 124 lacks the driver IC comprises an output side bump for supplying a signal, the output side bump is connected to the first wiring. However, placing the driving circuit on the substrate was common knowledge in art. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to place the driving circuit with bumps on the substrate to create a compact cell and decrease resistance between the driving circuit and wiring layer, respectively.

Per claim 4, 124 teaches the liquid crystal device according to claim 1, further comprising a second wiring which is provided on the second substrate [109] and which comprises a metal oxide film [ITO 109] and a conductive film having a resistance lower than that of the metal oxide film [chromium film 105]; and a driver IC provided on the second substrate for driving the liquid crystal [see paragraph bridging columns 1-2]; wherein the driver IC comprises an input side bump for inputting a signal, the input side bump is connected to the second wiring, and the conductive film included in the second wiring is formed on an area other than the portion connecting with the driver IC [see figure 2]. Regarding the driver IC comprises an output side bump for supplying a signal and the output side bump is connected to the first wiring, see rejection of claim 3 for this limitation.

Per claim 5, 124 teaches the liquid crystal device according to claim 4. 124 lacks a first protruding area which is provided in the vicinity of one edge of the second substrate and which does not overlap with the first substrate; and a second protruding area which is provided in the vicinity of another edge, intersecting said one edge, of the second substrate, and which does not overlap with the first substrate; wherein the driver IC is provided on the first protruding area, and the second wiring is provided on the first protruding area and on the second protruding area.

Art Unit: 2871

However, it was common knowledge. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the common knowledge limitation with 124 in order to decrease the size of the first substrate.

Per claim 8, 124 teaches the liquid crystal device according to claim 7, further comprising a second wiring which is provided on the second substrate [105], which comprises a metal oxide film and a conductive film having a resistance lower than that of the metal oxide film [105], and which is connected to the driver IC; a first protruding area which is provided in the vicinity of one edge of the second substrate and which does not overlap with the first substrate; and a second protruding area which is provided in the vicinity of another edge, intersecting said one edge, of the second substrate, and which does not overlap with the first substrate; wherein the driver IC is provided on the first protruding area and comprises an input side bump for inputting a signal from the second wiring, and the second wiring is provided on the first protruding area and on the second protruding area. Also see rejection of claim 5.

Per claim 9, 124 teaches the liquid crystal device according to claim 8, wherein the conductive film included in the second wiring is formed on an area other than the portion connecting with the driver IC [see figure 2].

Per claim 10, 124 teaches an electronic apparatus comprising a liquid crystal device according to claim 1 [this is merely an intended use of the claimed device].

Per claim 13, 124 teaches the liquid crystal device according to claim 11. 124 lacks an explicit teaching of an external circuit substrate supplying signals to each of the first and the second wirings. However, this is an inherent circuit because any display requires input signals to the drive circuit to produce images.

Art Unit: 2871

Allowable Subject Matter

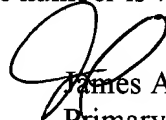
Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 6 is objected to because although 124 teaches the liquid crystal device according to claim 5 and an external circuit substrate connected to the second wiring on the second protruding area, it lacks the conductive film included in the second wiring is formed on an area other than the portion connecting with the external circuit substrate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Dudek whose telephone number is 308-4782. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


James A. Dudek
Primary Examiner
Art Unit 2871